

## **ARS-2-A30XT INSTALLATION GUIDE**

### **PARTIALLY REINFORCED COATING SYSTEM**

#### **Asphalt Roofs**

### **1. DESCRIPTION**

The Acrymax ARS-2-A30XT Elastomeric Roof System is a partially reinforced fluid applied elastomeric roof system used for protection, maintenance and weatherproofing of smooth or granulated surface asphalt substrates including existing BUR and modified bitumen roofs. Roof penetrations, flashings, and other critical areas of the roof are reinforced and then the roof is covered with a high performance elastomeric coating system. The ARS-2-A30XT System once applied provides the basis for a sustainable and easily maintainable system. The long-term cost benefits offered by this state-of-the-art technology include lower life cycle costs and energy savings. Acrymax coatings are VOC compliant waterborne materials that provide an environmentally responsible method for roofing and weatherproofing applications. Average membrane thickness of the ARS-2-A30XT System is 30 mils on the un-reinforced areas and 50 mils on the reinforced areas.

### **2. MATERIALS**

The materials used in the ARS-2-A30XT System may include but not be limited to:

- AF-130BC Basecoat
- AF-130 Intermediate Coat
- AF-130XT High-strength Finish-coat
- Poly-1 Polyester Reinforcement Fabric
- AF-127 Acrylic Primer
- AF-9000 Modified Asphalt Emulsion
- AF-315 Fibrated Acrylic

### **3. APPLICATION EQUIPMENT**

Acrymax AF-130 roof coatings can be applied by brush, roller, or spray. Airless spray is the most efficient method of application where

proper conditions and expertise exist. Spray equipment should be capable of 2500 – 3000 psi with output of 2 - 2.5 gallons per minute. A “Reverse-a-Clean” tip with tip size .027 to .041. Application by roller or brush may require additional coats to achieve uniform membrane thickness, but material requirements will generally remain the same. Rollers should be medium or long nap. (3/4” recommended)

### **4. INSTALLATION**

Installation of the ARS-2-A30XT System is accomplished in five (5) basic steps:

- a. Preparation
- b. Repair
- c. Installation of reinforcement
- d. Application of coatings
- e. Inspection

#### **(a) Preparation**

Acrymax AF-130 roof coatings must have a clean surface to adhere to. Proper surface preparation is the key to successful applications. All dirt, debris, oils etc. must be removed by the most effective method possible. High-pressure water (2500 psi) is the recommended method. Vacuuming, stiff brooming, and low-pressure water washing can also be used. When high-pressure water washing is used it should be done at a pressure suitable to remove embedded dirt and contaminants without damaging the roof and care must be taken to make sure that water does not intrude into the building or the existing roofing system. If pressure washing is not possible then an appropriate primer should be used (*consult Acrymax*). Priming is not a substitute for proper cleaning. Roofs that have previously been coated with aluminized asphalt coatings and heavily oxidized roofs must be

vigorously prepared to provide a clean surface and then primed with AF-127 or an asphalt primer. AF-9000 Modified Asphalt Emulsion should be used on heavily alligatored roof areas as a filler coat prior to application of the ARS-2-A30XT system. Application rates for AF-9000 can range from 1-6 gallons per 100 square feet depending on severity of alligating. Prime granulated surfaces with AF-127 Primer at the rate of 1 gallon per 250 square feet.

A tape test should be used to determine acceptability of cleaned surface for coating application. This is done by applying masking tape to the surface to be coated, and then peeling off the tape. If the adhesive side of the tape shows contaminants that will interfere with the adhesion of the coatings, then further cleaning or use of a primer may be necessary.

**(b) Repair**

All necessary roof repairs must be done according to good construction practices. Acrymax roof coatings should not be applied over roofing, insulation, or related materials that are saturated with moisture. For applications over existing roof systems a complete inspection must be made, including core cuts and moisture detection scans where necessary, to determine if and where excess moisture exists. Any wet insulation must be replaced with new materials of equal thickness and the area repaired to bring level with existing roof surface. Acrymax AF-130BC should be used with Poly-1 polyester reinforcement fabric in appropriate widths to repair and reinforce all defective areas in the existing roof surface. Acrymax AF-315 Fibrated Acrylic or Asphalt roof cement should be used to fill all cracks as necessary.

**(c) Installation of Reinforcement**

Before application of roof coatings verify that the surface to be coated is cleaned and prepared properly. At any time during application of the Acrymax system if roof surface becomes contaminated with dirt, dust or other materials that will interfere with adhesion of the coatings then cleaning measures must be taken to restore the surface to a suitable condition. .

All flashings, roof penetrations, transitions, and other detail areas requiring reinforcement should be completed with Poly-1 and Acrymax AF-130BC in the following manner:

1. Apply liberal coat of AF-130BC to area to be reinforced.
2. Immediately embed the appropriate width Poly-1 polyester fabric into this wet coat of AF-130BC. Apply without wrinkles, air pockets, or fishmouths. Poly-1 Fabric is available in 4", 6", 12", 18", and 40" widths.
3. Apply additional Acrymax AF-130BC to completely saturate fabric. Total AF-130BC used to embed and saturate Poly-1 should be 3 gallons per 100 square feet of reinforced area.

Estimated Acrymax AF-130BC per 100 linear feet required to install Poly-1 Fabric Reinforcement:

Fabric Width	4"	6"	12"	18"	40"
Gallons	1.0	1.5	3.0	4.5	10.0

**Note:** The estimated material requirements are for coating materials that are required for the tack coat that is used to embed Poly-1 and for the saturating coat that is applied after reinforcement has been installed. Areas that are reinforced must be coated again with each subsequent application of coatings that are part of the system. Special attention should be given to insure complete and adequate coverage at these critical areas.

**(d) Application of Coatings**

Apply Acrymax elastomeric roof coatings to produce monolithic roof membrane with specified dry film thickness. **Contrasting colors should be used for each coat.** White is the suggested finish color for energy efficiency and reduced thermal stress on the roof. Dust should be blown off of surfaces to be coated with compressed air or blowers immediately before application of coatings.

1. **Basecoat** - Apply 1<sup>st</sup> coat of elastomeric coating using Acrymax AF-130BC applied in a uniform manner at the minimum

application rate of 1.25 gallons per 100 square feet per coat. Allow to dry.

2. **Intermediate Coat** - Apply 2<sup>nd</sup> coat of elastomeric coating using Acrymax AF-130 applied in a uniform manner at the minimum application rate of 1.25 gallons per 100 square feet. Allow to dry.
3. **Finish Coat** - Apply 3<sup>rd</sup> coat of elastomeric coating using Acrymax AF-130XT applied in a uniform manner at the minimum application rate of 1.25 gallons per 100 square feet.

**Notes:** Each coat should be applied in a perpendicular direction to the previous coat. During application of the coating system special attention should be given to flashings and any other critical areas so as to build required membrane thickness. When applied by roller additional coats may be necessary to achieve uniform film thickness. Total material requirements will stay the same. All specified material must be applied and minimum membrane thickness achieved.

### **(e) Inspection**

Inspect entire roof area and touch-up deficient areas with additional Acrymax AF-130XT as necessary to insure complete and uniform coverage. Special attention should be given to critical areas of roof such as flashings, repaired areas, roof penetrations, etc.

## **5. LIMITATIONS**

These are general guidelines for application of the Acrymax ARS-2-A30XT System. The material requirements may vary depending on the specific job requirements. If unusual conditions exist, contact Acrymax Technical Service at 610-566-7470. Acrymax Fluid Applied Elastomeric roofing systems must be applied to structurally sound substrates. All surfaces must be clean and dry before application of roofing. The suitability of Acrymax coatings or systems for an intended use shall be solely up to the user. Drying time and coverage are not guaranteed. Acrymax roofing systems must not be applied over wet insulation or related materials. Failure of the substrate does not constitute failure of the Acrymax coating or system. Acrymax systems are designed for use on well drained roofs;

however, they are acceptable for use where poor drainage causes temporary ponding. Acrymax Coatings should not be applied when rain or freezing temperatures are expected before coating is dry.

## **6. WARRANTY**

Acrymax offers limited material warranties for the ARS-2-A30XT System when all materials are used in strict accordance with all of Acrymax's written requirements and recommendations and required dry film thicknesses are achieved. Acrymax's sole responsibility under this limited material warranty is for defective material and Acrymax's obligation shall not exceed the purchase price of the Acrymax materials used or part thereof proven to be defective. Submittal of required documentation is required for warranty. Consult Acrymax for details. This warranty gives specific legal rights and you may have other legal rights that vary from state to state. No statement by anyone may supersede this limited material warranty, except when done in writing by Acrymax's Technical Service Office in Media, PA. Specific jobs that meet certain requirements, are pre-approved by Acrymax, and are applied by an Acrymax approved applicator may qualify for system warranties covering labor and material. (Consult Acrymax)

### **INSTALLATION NOTES:**

1. Acrymax coatings are waterborne. Consequently application of these materials must not be done when rain or other conditions such as fog or heavy dew are possible before coating can dry sufficiently to be resistant to these occurrences. Drying time is affected by numerous factors including temperature, direct sunlight, relative humidity, air movement, thickness and color of applied coating, etc... Under proper conditions dry times for coatings will be from 2 to 4 hours, but under adverse conditions dry times can range to 12 hours or more. Application should not be done when temperatures are below 45°F or expected to drop below freezing before coating is dry. Special attention should be given to the dew point temperature because when this temperature is reached and dew forms the drying process of the coatings will cease.

2. Coatings should be allowed to dry thoroughly between coats. *Minimum* dry time between coats is 4 hours.
3. During extremely hot conditions do not apply coatings, or apply coatings in thinner applications to prevent blistering. Additional coats will be required to achieve specified dry film thickness.
4. The material requirements specified herein are for typical conditions. The number of gallons required may need to be increased to account for uneven application, applicator inefficiencies, surface texture, or other conditions. In all cases minimum dry film thickness must be achieved.
5. Surfaces must always be clean before application of AF-130 Coatings. Care must be taken to insure that on-site manufacturing emissions or extended time intervals after original cleaning do not interfere with any stage of the coating applications. If either condition occurs then cleaning may be required again.
6. Adequate coating thickness is essential to performance. If the applicator is unfamiliar in gauging application rates, we suggest that a controllable area be measured and the specified material be applied. In all cases all minimum specified material must be applied and proper minimum dry film thicknesses must be achieved. Care must be taken to insure that all areas completed including all flashings, roof penetrations, etc. are coated sufficiently to insure a watertight seal.
7. Consult ACRYMAX TECHNOLOGIES if any deviations from published specifications are considered. Unapproved deviations from installation guidelines and specified material requirements may seriously affect the coating system performance, and shall be undertaken at the specifier's, applicator's or building owner's own risk.
8. Applicator must comply with all applicable local, state, and federal regulations if lead based paint or other hazardous materials are encountered.
9. Roofing is hazardous work and coatings are very slippery when wet. Comply with fall protection rules and regulations.

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